

**Remarks:**

Applicants appreciatively acknowledge the Examiner's confirmation of receipt of Applicants' claim for priority and certified priority document under 35 U.S.C. § 119(a)-(d).

Reconsideration of the application[[, as amended herein,]] is respectfully requested.

Claims 19 - 36 are presently pending in the application. Claims 1 - 18 were previously canceled. As it is believed that the claims were patentable over the cited art in their previously presented form, the claims have not been amended to overcome the references.

Applicants gratefully acknowledge that item 3 of the above-identified Office Action indicated that claims 21, 24 - 28 and 30 - 34 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In item 2 of the Office Action, claims 19, 20, 22 - 23, 19 and 35 - 36 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U. S. Patent No. 7,499,453 to Carlson et al ("**CARLSON**").

Applicants respectfully traverse the above rejections.

More particularly, claim 19 recites, among other limitations:

**identifying the influencing relationships between the transmission channels by continual determination of the spectral interference in the transmission channels** and of the status changes of the transmission channels; and

optimizing the transmission parameters of the transmission **channels as a function of the identified influencing relationships** and the value rating of their respective services. [emphasis added by Applicants]

Similarly, Applicants' claim 36 recites, among other limitations:

a device for setting the transmission parameters as a function of the determined transmission characteristics of the respective transmission channel and of an assigned service, with the transmission channels in each case being assigned one of at least two different value ratings, **and the transmission channels of the group being able to exert a mutual influence through spectral interference,**

**wherein the communication equipment is embodied for recording the spectral influence in the transmission channels** and the status changes of the transmission channels and for identifying the influencing relationships between the transmission channels, **and an optimization routine is provided for optimizing the transmission parameters of the transmission channels as a function of the identified influencing relationships** and the value rating of their respective services. [emphasis added by Applicants]

Thus, Applicants' claims require, among other things,

**identifying the influencing relationships causing disturbances between transmission lines by continually determining the**

spectral interference in the transmission channels and  
utilizing these continually determined relationships for the  
optimization of the transmission parameters. Applicants'  
claimed invention advantageously provides a method and device  
that can easily improve the transmission quality.

The **CARLSON** reference, cited against Applicants' independent  
claims in the Office Action, does not teach or suggest all of  
the limitations of Applicants' claims, including those  
discussed above, among others.

More particularly, the **CARLSON** reference discloses a  
communication network having a shared medium in which channels  
are assigned to users depending on a predicted load  
distribution. See, for example, the Abstract of **CARLSON**. In  
**CARLSON**, the channel assignments are made to a respective  
channel of the shared medium based upon a predicted need.  
However, in contrast to Applicants' claims, the **CARLSON**  
reference does not teach or suggest, among other limitations,  
identifying influencing relationships between transmission  
channels by determining the spectral interference in the  
channels, as particularly recited in Applicants' claims.  
Furthermore, the **CARLSON** reference does not teach or suggest,  
among other limitations, utilizing the resultantly identified

**influencing relationships to optimize the transmission parameters**, as further required by Applicants' claims.

However, page 3 of the Office Action alleged, in part, that the **CARLSON** reference disclosed identifying the influencing relationships between the individual channels through "the adjustment of SLA as in Fig. 32". Applicants respectfully disagree.

In particular, an adjustment of SLA (service level agreement), as made in **CARLSON**, is merely a change relating to the services a subscriber gets from his network operator. See, for example, Fig. 26 of **CARLSON**. Specifically, in **CARLSON**, an SLA is a predetermined agreement between the provider and user with respect to the quality of a transmission, for example. See, for example, col. 16 of **CARLSON**, lines 5 - 12, which state:

**User SLAs** that at least partially affect prioritization policies include those that specify, for example: (i) **a guaranteed minimum level of bandwidth**; (ii) **a time-of-day (TOD) minimum level of bandwidth**; or (iii) **a guaranteed minimum level of bandwidth up to a maximum burstable level of bandwidth with target probability**. Equivalently, such provisions also may be found in a CSLA for a class of which the user is a member. [emphasis added by Applicants]

However, assigning priority based on the contractual agreement between a provider and a user, as specifically disclosed in

connection with the SLA adjustment in **CARLSON**, cannot be analogized to Applicants' particularly claimed **identification of influencing relationships by the continual determination of spectral interference in the transmission channels**, as required by Applicants' claims. Rather, in Applicants' claimed invention, influences between individual channels in the transmission line are monitored (for example, the influences between individual cables bonded together). These interferences may result from disturbances caused by near-end or far-end crosstalk.

In contrast, the **CARLSON** reference does not teach, suggest or even hint, in any way, towards the implementation of a method or device using influence relationships between different lines to improve the transmission quality.

In fact, **CARLSON** does not mention the problem of interference or disturbance, at all. The problem of crosstalk is specifically relevant to transmission methods like DSL (where multiple copper lines cause mutual interferences), but it is not an issue for access networks using a shared medium like the data-over-cable networks described in **CARLSON**. Rather, data-over-cable networks, as disclosed in **CARLSON**, only use a single transmission line (i.e., the shared medium), and thus, there will not be influencing relationships between

transmission lines to identify, as required by Applicants' claims because, in **CARLSON**, no mutual influence will occur between different transmission lines (i.e., **CARLSON** disclosing only one transmission line).

However, even if it were somehow assumed, arguendo, that the different transmission channels of Applicants' claims (i.e., the different transmission lines) could be analogized to the different links between the individual users and the network disclosed in **CARLSON**, the **CARLSON** reference would still not teach or suggest all limitations of Applicants' claims. In particular, among other limitations, the **CARLSON** reference would still not teach or suggest **determining influencing relationships between the alleged "transmission channels" by monitoring the spectral interference of the transmission channels/lines**.

For the foregoing reasons, among others, Applicants' claims are believed to be patentable over the **CARLSON** reference.

It is accordingly believed that none of the references, whether taken alone or in any combination, teach or suggest the features of claims 19 and 36. Claims 19 and 36 are, therefore, believed to be patentable over the art. The

dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 19.

Finally, Applicants appreciatively acknowledge the Examiner's statement that claims 21, 24 - 28 and 30 - 34 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims." In light of the above, Applicants respectfully believe that rewriting of claims 21, 24 - 28 and 30 - 34 is unnecessary at this time.

In view of the foregoing, reconsideration and allowance of claims 19 - 36 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stemmer LLP, No. 12-1099.

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Respectfully submitted,

/Kerry Pauline Sisselman/  
Kerry Pauline Sisselman  
Reg. No. 37,237

For Applicants

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Lerner Greenberg Stemer LLP  
Post Office Box 2480  
Hollywood, FL 33022-2480  
Tel: (954) 925-1100  
Fax: (954) 925-1101